

Inductive proximity switches with constant correction factor 1.

EMF-immune sensors with identical sensing range on all metals.



- Resistant to weld slag due to thermoset cover and teflon coating.
- Increased sensing range for more plant uptime.
- Different designs: M12, M18, M30 and rectangular.
- Cylindrical types with high switching frequency.
- Electromagnetic-field immune: Suitable for all AC/DC and medium frequency welding systems.

Position sensors

K=1
same sensing range for all metals

Resistant to electromagnetic fields

Increased sensing range

Resistant to weld slag

Correction factor 1

No matter whether steel, aluminium, copper or other non-ferrous metals: The new "K=1" sensors have the same sensing range on all metals, i.e. the correction factor is constantly 1.

Electromagnetic-field immune, resistant to weld slag

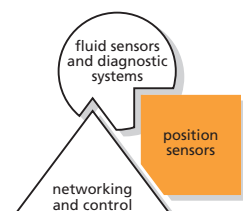
Due to the special coil structure the proximity switches are insensitive to interfering magnetic fields which occur during the welding process. This makes them an optimum choice for use in welding systems. The sensing face is made of a thermoset material and the surface of the metal housing is teflon-coated so that no weld slag adheres to the housing.

Different designs

The variety of types covers M12, M18 and M30 threaded types through to the rectangular design with an edge length of 40 mm. Special feature of this rectangular design: The sensing face can be turned in five different positions.

Increased sensing range

The increased sensing range is ensured over the whole temperature range, thus providing better protection against failures by mechanical damage. In practice this corresponds to a value which is up to 2 times higher in comparison to standard switches.



Inductive, capacitive and magnetic proximity switches

Applications:
Automotive industry
Constant sensing range on all metals

Position sensors

Electrical design	DC PNP 3-wire						DC PNP 4-wire			
Connection										
Type	M12		M18		M30		rectangular			
Nominal sensing range s_n [mm]	3 f	8 nf	5 f	12 nf	10 f	20 nf	20 f	35 nf		
Output	—						complementary			
Order no.	IFW200	IFW201	IGW200	IGW201	IIW200	IIW201	IM5067	IM5073	IM5097	IM5098
Operating voltage [V]	10...30 DC						10...36 DC			
Current rating [mA]	200						250			
Leakage current [mA]	—						—			
Short circuit protection, pulsed	—						•			
Rev. polarity / overl. protection	—						• / •			
Voltage drop [V]	< 2.5						< 2.5			
Current cons. at 24 V [mA]	< 20 (24 V)						< 20 (24 V)			
Function display										
Output status LED	yellow (4 x 90°)						yellow			
Operation LED							green			
Switching frequency [Hz]	4000	2000		1000		250				
Operating temperature [°C]	-25...70						-25...70			
Protection	IP 67; II						IP 67; II			
Housing materials	brass, thermoset (PF)						PPE / PPS			
Housing PTFE-coated (safecoat)	•						—	•	—	•
Total length [mm]	65						40 x 40 x 66			
Connection	M12 connector						M12 connector			
Wiring diagram										

Sockets

Socket type	Design	Order no.
ifm	2 m (PUR), M12 straight, without LED	E10915
ifm	2 m (PUR), M12 angled, without LED	E10909
ifm	2 m (PUR), M12 angled, 3 LEDs	E10912
ifm	5 m (PUR), M12 straight, without LED	E10916
ifm	5 m (PUR), M12 angled, without LED	E10910
ifm	5 m (PUR), M12 angled, 3 LEDs	E10913

Accessories

Description	Order no.
Plastic mounting sleeve with end stop for type M12	E11047
Plastic mounting sleeve with end stop for type M18	E11048
Plastic mounting sleeve with end stop for type M30	E11049
Angle bracket for type M12, stainless steel	E10735
Angle bracket for type M18, stainless steel	E10736
Angle bracket for type M30, stainless steel	E10737
Mounting clip for type M12, stainless steel	E11533
Mounting clip for type M18, stainless steel	E11534

Dimensions

